FIG. 1

(PRIOR ART)

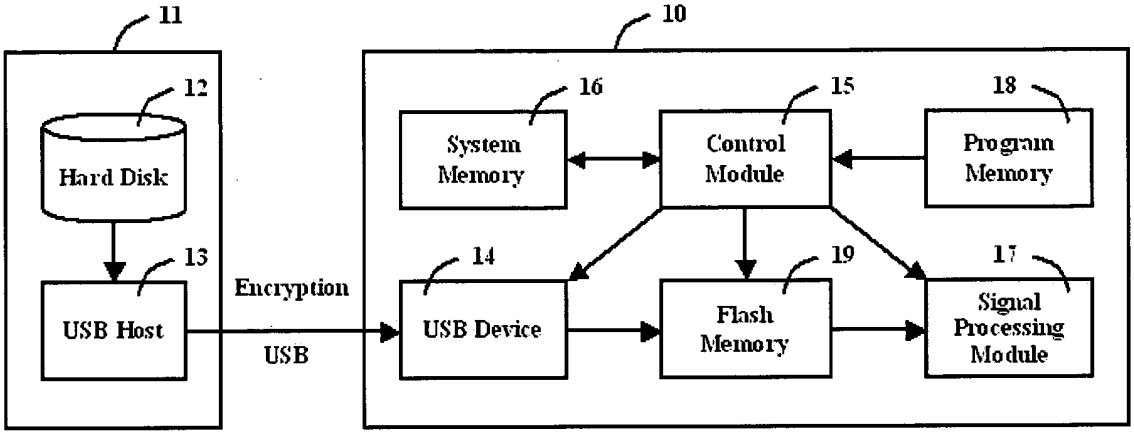


FIG. 2

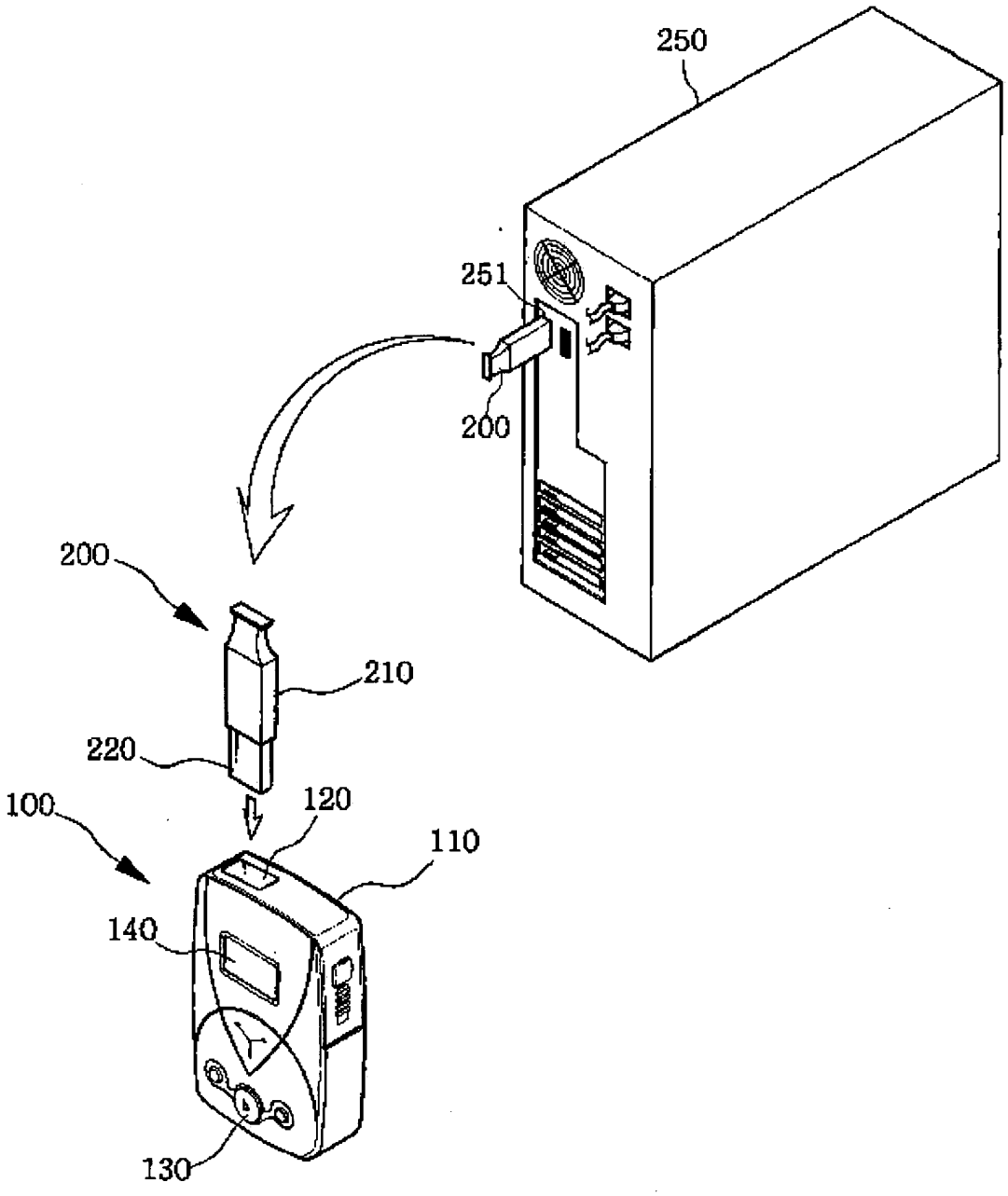


FIG. 3A

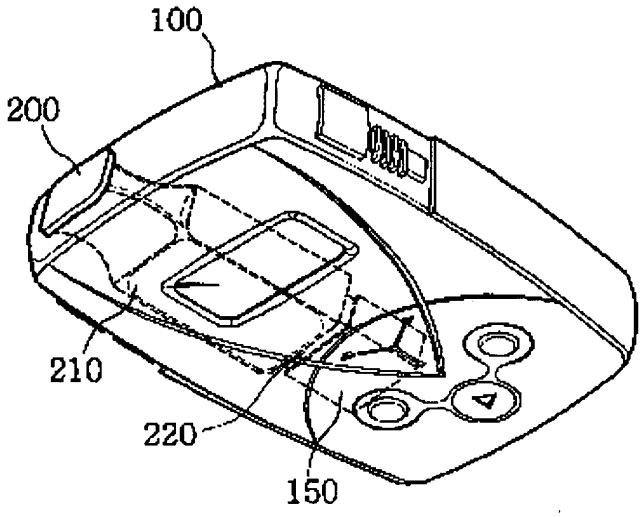


FIG. 3B

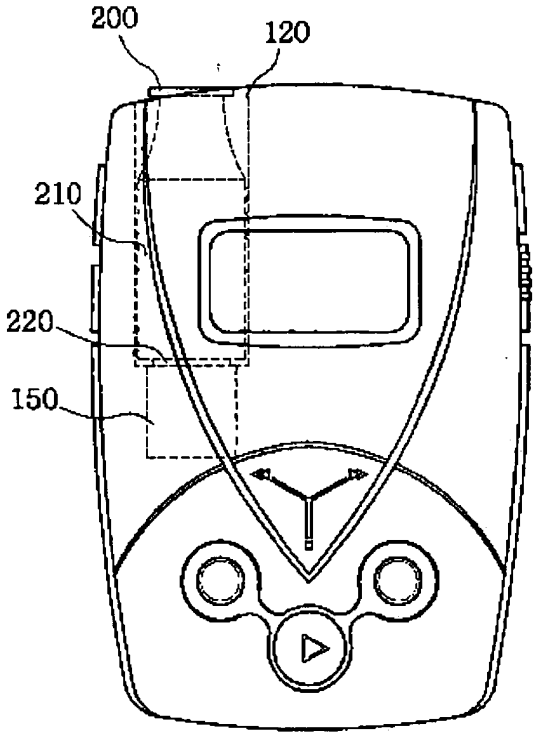


FIG. 4

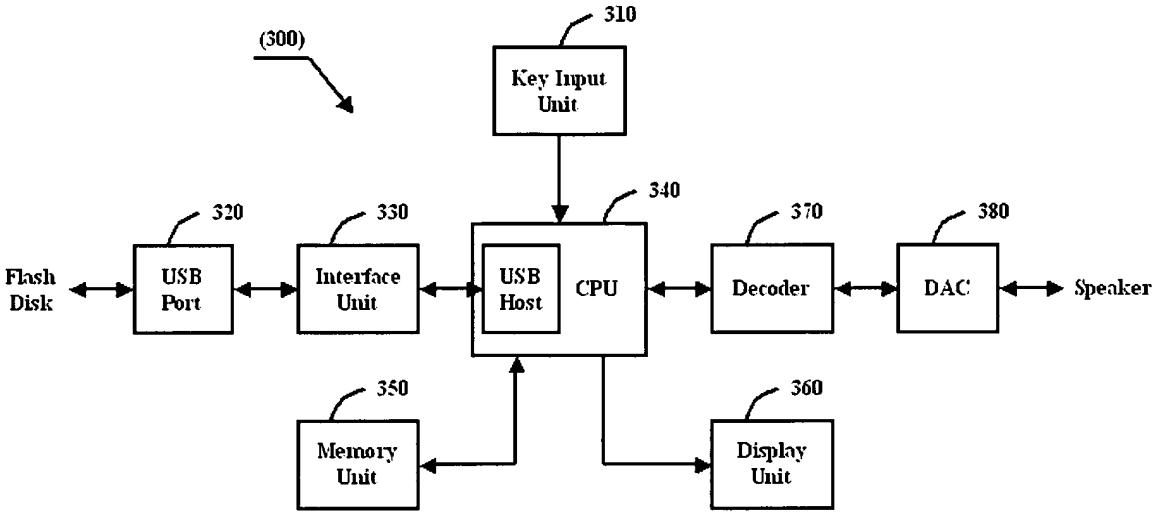

(300)
310
Key Input Unit
320
330
340
370
380
Flash Disk
USB Port
Interface Unit
USB Host
CPU
Decoder
DAC
Speaker
350
360
Memory Unit
Display Unit

FIG. 5

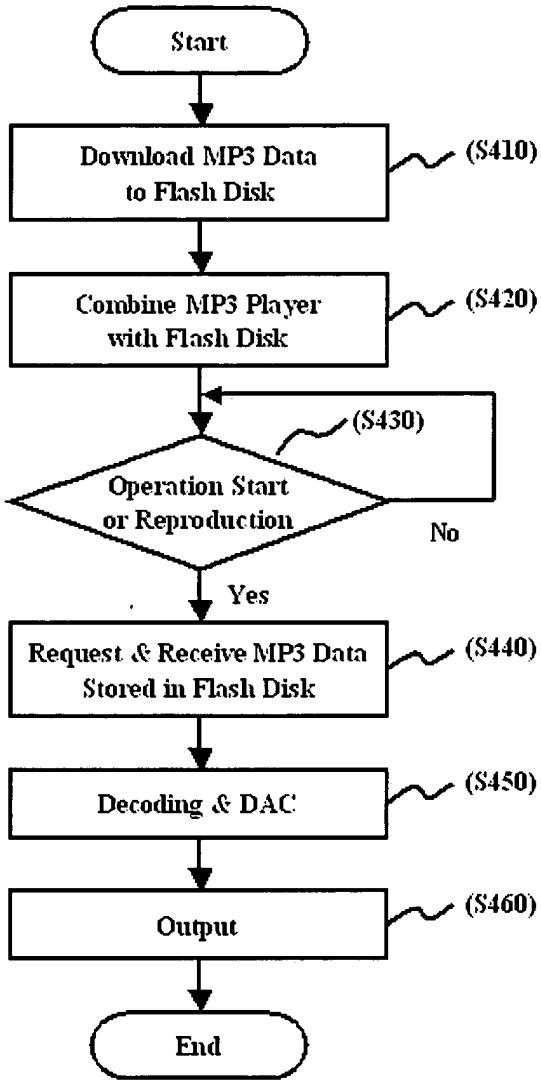

Start
Download MP3 Data to Flash Disk
(S410)
Combine MP3 Player with Flash Disk
(S420)
(S430)
Operation Start or Reproduction
No
Yes
Request & Receive MP3 Data Stored in Flash Disk
(S440)
Decoding & DAC
(S450)
Output
(S460)
End

FIG. 6

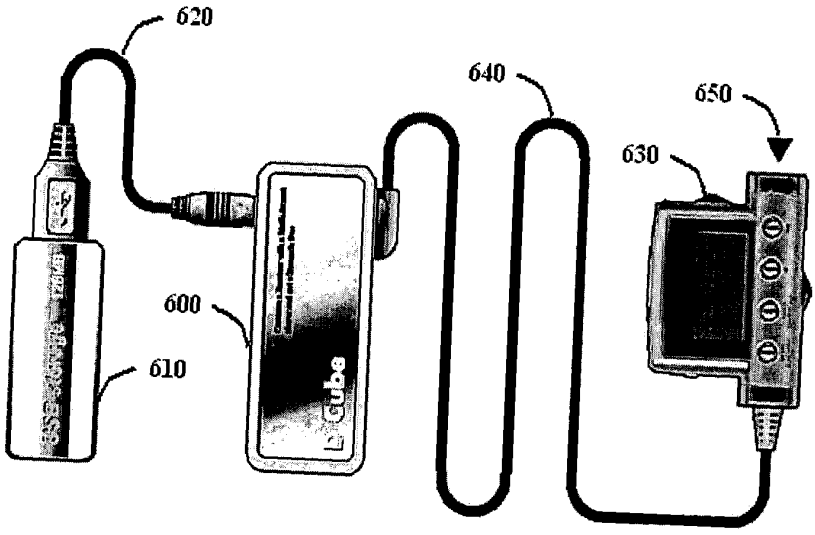


FIG. 7

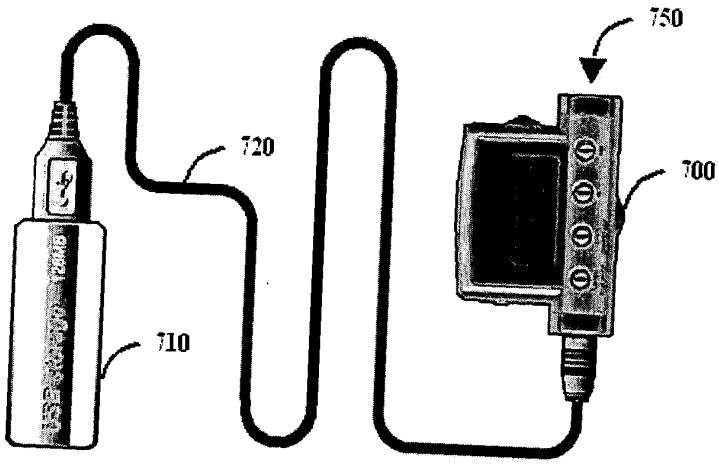


FIG. 8

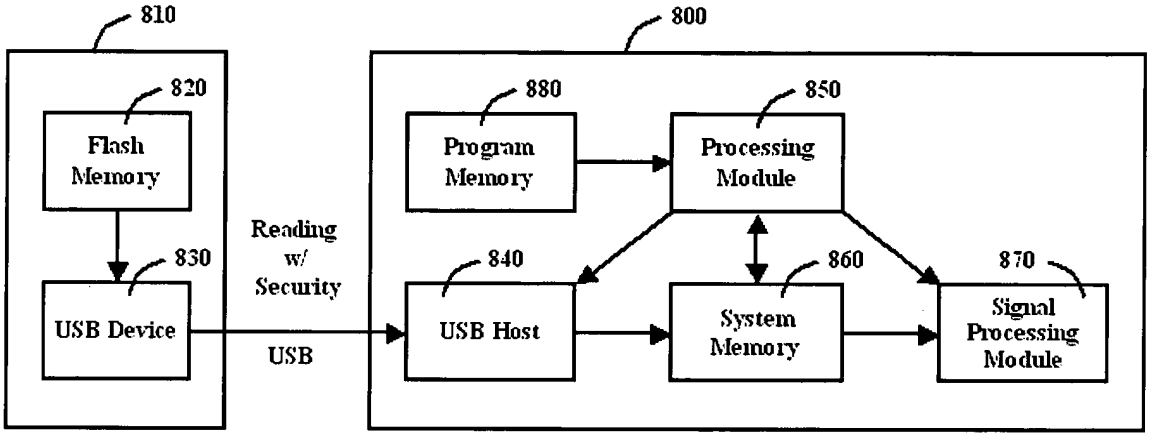


FIG. 9

16-Bit FAT Structure

Offset	Length	Value
0	8 bytes	Name
8	3 bytes	Extension
11	1 byte	Attribute (00ARSHDV) 0 : unused bit A : archive bit R : read-only bit S : system bit D : directory bit V : volume bit
22	word	Time
24	word	Date
26	word	Cluster
28	dword	File size

FIG. 10

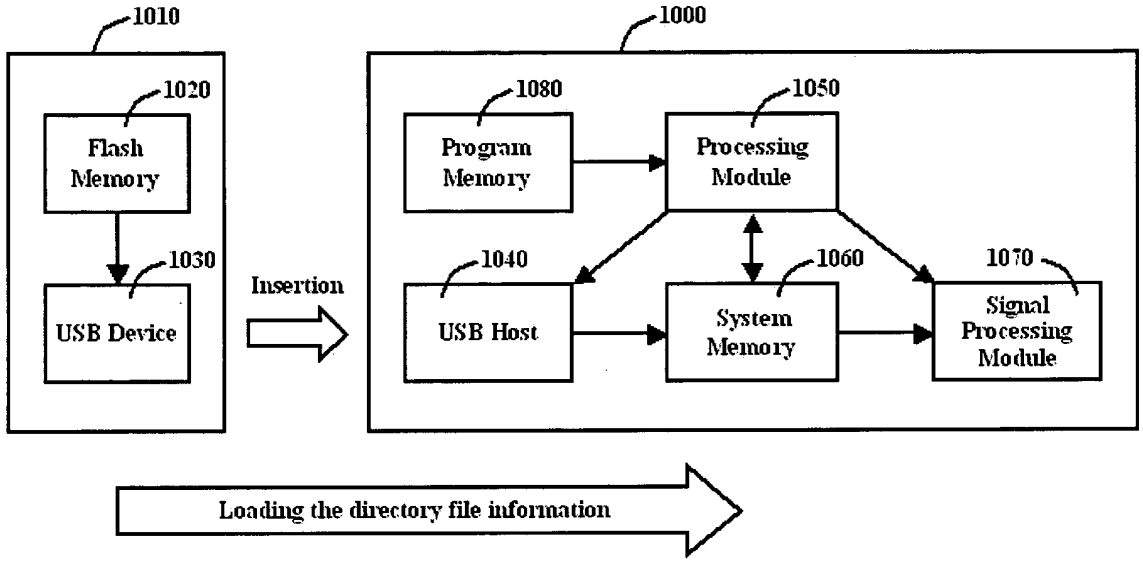

1010
1020
Flash Memory
1030
USB Device
Insertion
1000
1080
Program Memory
1050
Processing Module
1040
USB Host
1060
System Memory
1070
Signal Processing Module
Loading the directory file information

FIG. 11

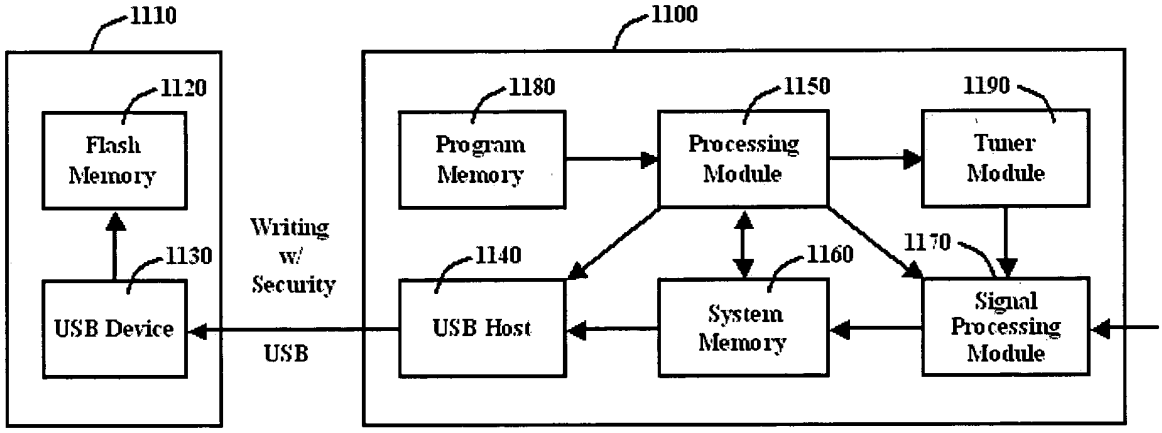
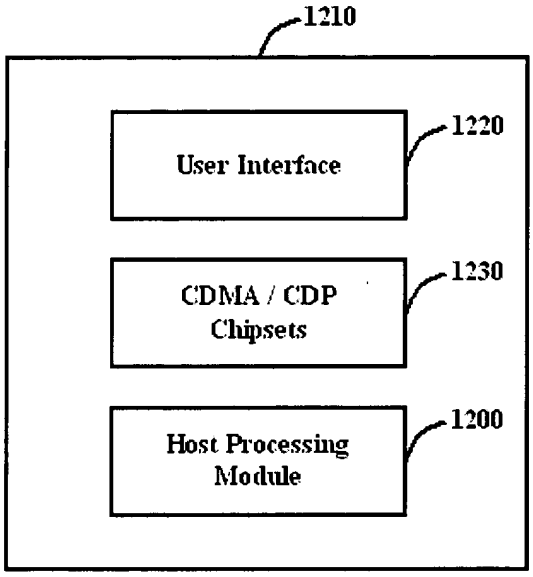

1110
1120
Flash Memory
1130
USB Device
Writing w/ Security
USB
1100
1180
Program Memory
1150
Processing Module
1190
Tuner Module
1140
USB Host
1160
System Memory
1170
Signal Processing Module

FIG. 12


1210
User Interface
1220
CDMA / CDP Chipsets
1230
Host Processing Module
1200